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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,798	07/09/2003	Siegfried Herbold	024-1-040	2305
7590	04/20/2004		EXAMINER	
Mallinckrodt & Mallinckrodt Suite 510 10 Exchange Place Salt Lake City, UT 84111			MILLER, TAKISHA S	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/616,798	HERBOLD, SIEGFRIED	
	Examiner	Art Unit	
	Takisha Miller	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07092003</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the stationary housing must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 64,66,68. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 1 is objected to because of the following informalities: At line 7, "anyone " should be -- any one -- ; At line 8, "exerted the" should be -- exerted to the -- ; At line 9, "measuring heads" at the beginning of the line, should be -- measuring heads; -- . Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim language, "some of said measuring heads are different" is unclear. Does the applicant mean the measuring heads are physically different, functionally different, both or neither? Examiner assumes functionally different (i.e. measuring ranges) with regards to the primary examination of the case.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Pohl (4,976,133).

a. With respect to claim 1, Pohl teaches a testing device (43) for measuring torques, comprising a plurality of measuring heads (18,19), each of said measuring heads (18,19) having a torque sensor (16,17) and separate signal processing means (Fig.3) for processing signals from said torque sensor (16,17) to provide torque measuring data at a measuring head signal output, each of said signal processing means being located in the associated one of said measuring heads in close proximity with said torque sensor (16,17), said signal processing means of said plurality of measuring heads (18,19) being calibrated to provide, at any one of the measuring head outputs, the same torque measuring data, when the same torque is exerted to the respective one of said measuring heads (18,19)(Abstract, lines 6-10); the measuring head outputs of said

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plurality of measuring heads (18,19) being applied to a display or evaluation means (15,38)(Col. 4, lines 31-39).

b. With respect to claims 2 and 3, Pohl teaches a testing device (43) wherein at least some of said measuring heads (18,19) have different measuring ranges (Col. 9, lines 54-58).

c. With respect to claim 4, Pohl teaches a testing device (43) wherein, in at least one of said measuring heads (18,19), said signal processing means comprise means for determining the maximum torque of a torque pulse exerted on said measuring head (18,19)(Col. 9, lines 1-21).

d. With respect to claim 5, Pohl teaches a testing device (43) wherein said torque sensor (16,17) provides analog output signals, and said signal processing means comprise AD-converter means (13,36) for converting said analog signals into digital signals (Col. 10, lines 34-44).

e. With respect to claim 6, Pohl teaches a testing device (43) wherein said signal processing means further comprise means for linearizing and calibrating said digital signals from said AD-converter (13,36) to provide said torque measuring data (Col. 10, line 65 – Col. 11, line 3).

f. With respect to claim 8, Pohl teaches a testing device (43) wherein at least one of said measuring heads (18,19) forms part of a torque wrench (1)(Fig.1).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pohl (4,976,133) in view of Nicot (6,694,828). Pohl teaches a testing device (43) but lacks teaching means for

wireless transmission of said torque measuring data. Nicot teaches a wireless transmission means (See Nicot; Col. 6, lines 49-54). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Pohl to include a wireless transmission means since the use of wireless technology is readily available and cost efficient.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pohl (4,976,133) in view of Ambrosina et al. (6,418,797). Pohl teaches a testing device (43) wherein at least one of said measuring heads (18,19) comprise a stationary housing (25), a driving part (2) permitting exerting torque and attached to an inner body (31) and measuring pick-up means (32)(Fig.4) but lacks teaching the torque sensor comprising an outer and inner annular body, webs and a printed circuit board. Ambrosina teaches an outer annular body (320) fixedly retained in a housing (303A), an inner annular body (340) connected with said outer annular body (320) through webs (342), and measuring pick-up means (361) responding to deformation of said webs (342) under the action of said torque (Col. 10, lines 11-26), a printed circuit board (438) on which components of said signal processing means (435) are mounted (Col. 12, lines 59-62), said printed circuit board (438) having a central aperture therethrough (Fig.12), said printed circuit board (438) being arranged in a shallow cavity (Fig.11) within said outer annular body (420) and said driving part extends through said central aperture of said printed circuit board (438)(Fig.12). It would have been obvious to one of ordinary skill in the art to modify Pohl to include an outer

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and inner annular body, webs and a printed circuit board as taught by Ambrosina in order to effectively detect the torque applied to the apparatus.


Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents: 6,269,702; 6,227,060; 4,471,663; 4,444,061; 5,731,529; 5,501,110; 5,009,110; 6,644,135; 4,823,618

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Takisha Miller whose telephone number is (571) 272-2184. The examiner can normally be reached on Monday - Friday (7:00 am - 3:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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